



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

*Syngenta Seeds, Inc.*

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR PROPAGATING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE FOREGOING PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF SEEDS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'Coker 9553'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixth day of December, in the year two thousand and six.

Attest:

Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

Secretary of Agriculture



**U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE  
APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE**  
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

<b>1. NAME OF OWNER</b> <b>Syngenta Seeds, Inc.</b>		<b>2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER</b> <b>D00*6874-2</b>		<b>3. VARIETY NAME</b> <b>COKER 9553</b>	
<b>4. ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country)</b> <b>6515 Ascher Road</b> <b>Junction City, Kansas 66441</b>		<b>5. TELEPHONE (include area code)</b> <b>785-210-0218</b>		<div style="border: 1px solid black; padding: 5px;"> <b>FOR OFFICIAL USE ONLY</b>  <b>PVPO NUMBER</b>  <div style="font-size: 2em; font-family: monospace;">200600238</div> </div>	
		<b>6. FAX (include area code)</b> <b>785-210-0231</b>			
<b>7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM ORGANIZATION (corporation, partnership, association, etc.)</b> <b>Corporation</b>		<b>8. IF INCORPORATED, GIVE STATE OF INCORPORATION</b> <b>Delaware</b>		<b>9. DATE OF INCORPORATION</b> <b>2000</b>	
<b>10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers)</b> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <b>Dr. Rollin Sears</b>  <b>6515 Ascher Road</b>  <b>Junction City, Kansas 66441</b> </div> <div style="width: 50%;"> <b>Copy to : Chris Bruns</b>  <b>PO Box 30</b>  <b>Berthoud, CO 80513</b>  <b>rbruns@frii.com</b> </div> </div>					
<b>11. TELEPHONE (Include area code)</b> <b>785-210-0218</b>		<b>12. FAX (Include area code)</b> <b>785-210-0231</b>		<div style="display: flex;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">F E E S R E C E I V E D</div> <div> <b>FILING AND EXAMINATION FEES:</b>  <div style="display: flex; justify-content: space-between;"> <span>\$ 3652.00</span> <span>730.00</span> </div> <b>DATE</b> 7/13/06 8/14/2006  <b>CERTIFICATION FEE:</b>  <div style="display: flex; justify-content: space-between;"> <span>\$ 768.00</span> </div> <b>DATE</b> 10/13/06 </div> </div>	
<b>13. E-MAIL</b> <b>rollin.sears@agripro.com</b>					
<b>14. CROP KIND (Common Name)</b> <b>Soft Red Winter Wheat</b>		<b>15. FAMILY NAME (Botanical)</b> <b>Gramineae</b>		<b>16. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL)</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
<b>17. GENUS AND SPECIES NAME OF CROP</b> <b>Triticum aestivum</b>		<b>18. IS THE VARIETY A FIRST GENERATION HYBRID?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		<b>19. IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERCIALIZATION.</b>	
<b>20. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED</b> (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)					
<b>21. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?</b> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)		<b>22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED			
<b>23. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act)</b> <input checked="" type="checkbox"/> YES (If "yes", answer items 21 and 22 below) <input type="checkbox"/> NO (If "no", go to item 23)		<b>24. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED (If additional explanation is necessary, please use the space indicated on the reverse.)			
<b>25. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)		<b>26. THE OWNERS DECLARE THAT A VIABLE SAMPLE OF BASIC SEED OF THE VARIETY HAS BEEN FURNISHED WITH APPLICATION AND WILL BE REPLENISHED UPON REQUEST IN ACCORDANCE WITH SUCH REGULATIONS AS MAY BE APPLICABLE, OR FOR A TUBER PROPAGATED VARIETY A TISSUE CULTURE WILL BE DEPOSITED IN A PUBLIC REPOSITORY AND MAINTAINED FOR THE DURATION OF THE CERTIFICATE.</b> The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.			
<b>SIGNATURE OF OWNER</b> 		<b>SIGNATURE OF OWNER</b> 			
<b>NAME (Please print or type)</b> <b>Dr. Rollin Sears</b>		<b>NAME (Please print or type)</b> 			
<b>CAPACITY OR TITLE</b> <b>R&amp;D Manager</b>		<b>DATE</b> <div style="font-size: 1.5em; font-family: monospace;">8/6/2006</div>		<b>CAPACITY OR TITLE</b> 	
				<b>DATE</b> 	

(See reverse for instructions and information collection burden statement)

## INSTRUCTIONS

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**GENERAL:** To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. **DO NOT** use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvpo/pvp.htm>

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 <http://www.ams.usda.gov/lsg/seed.htm>.

## ITEM

- 19a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
  - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
20. If "Yes" is specified (*seed of this variety be sold by variety name only, as a class of certified seed*), the applicant **MAY NOT** reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.

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**22. CONTINUED FROM FRONT** (Please provide a statement as to the limitation and sequence of generations that may be certified.)

The variety 'COKER 9553' will be constituted from Breeder seed, and proceed through Foundation, Registered and Certified in succeeding generations. Generations which may be multiplied will be Breeder seed, Foundation, Registered and Certified.

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**23. CONTINUED FROM FRONT** (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Foundation seed was sold in September 2005. Certified seed stocks of COKER 9553 will be available in the Fall of 2006.

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**24. CONTINUED FROM FRONT** (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

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**NOTES:** It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

## ***Exhibit A.***

### ***Origin and Breeding History of COKER 9553***

The single cross that produced COKER 9553, (aka. D00\*6874-2), "89M-4035A/2580" was made in the 1993 spring greenhouse at Brookston, IN. '89M-4035A' was an AgriPro early maturing breeding line selected from the cross, "IL77-2656/NK79W810". "IL77-2656" was an experimental line from the University of Illinois wheat breeding program that was tested in the 1980-1981 Uniform Eastern Soft Red Winter Wheat Nursery (entry #18). "NK 79W810" was an experimental line from the Northrup King wheat breeding program that was tested in the 1980-1981 Uniform Southern Soft Red Winter Wheat Nursery (entry #24). COKER 9553's male parent was the Pioneer Hybred International wheat variety, "2580". The F1 seeds were planted in a field near Jonesboro, AR, in fall of 1993. Seeds harvested from this F1 row were grown in a 1994-95 F2 bulk plot near Jonesboro, AR which was destroyed by an application of ryegrass herbicide that was contaminated with glyphosate. Remnant F1 seed was re-grown in a 1995-96 F2 Bulk plot near Jonesboro, AR. A portion of the harvested F2 bulk plot was planted in a 1996-97 F3 bulk plot near Cleveland, MS. A portion of the harvested seed from this F3 bulk plot was thin-seeded in a 1997-98 F4 bulk plot near Jonesboro, AR. Heads were selected from this F4 bulk population and grown as F5 head-rows in a field near Jonesboro, AR in 1998-99. The head-row selection that COKER 9553 (D00\*6874-2) was derived from was selected for medium height, medium-early heading and maturity, and resistance to the then-current races of stripe rust. The F6 generation was grown in Observation plots near Jonesboro, AR and Cleveland, MS in 1999-00. The mother line from which COKER 9553 was reselected has been in advanced testing from 2001 to 2004 and was tested as AW\_D00\*6874 in the 2003-2004 Uniform Southern Soft Wheat Nursery (entry #21). The progeny plot selection bulk that was used to produce breeder seed of COKER 9553 has been in advanced testing from 2004 to the present and was tested as D00\*6874-2 in the 2004-2005 Uniform Southern Soft Wheat Nursery (entry #27). COKER 9553 was also tested in state-run official wheat trials in Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, North Carolina, South Carolina, and Tennessee in 2004-05.

In 2002, 100 purification headrows were grown near Jonesboro, Arkansas, from heads selected from an F7 plot. Fifteen rows were selected and individually harvested and shipped to Colorado for Progeny Plot seed increase in 2003. Six of these fifteen progeny plots grown near Berthoud, Colorado were individually harvested and were paired based upon phenotypic differences into three reselections. In 2004, bulk seed from these three reselections along with bulk seed from the mother line were in replicated yield trials in the Midsouth. At the same time seeds from each of the six progeny reselections were individually grown in 0.8 – 1.9 Acre breeder seed increases near Lucerne, Colorado and in observation plots near Jonesboro, AR. Based upon this trial and observation plot data, three of the progeny breeder seed increases (tested as #1 and #2) were bulked to form COKER 9553 [D00\*6874-2].

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COKER 9553 has been uniform and stable since 2004. Less than 0.8% of the plants were rogued from the Breeders Seed increase in 2005. Approximately 90% of the rogued variant plants were taller height wheat plants (8 to 15 cm) and 5% were awnletted plants and 5% were bronze chaffed wheat plants. Up to 0.8% variant plants may be encountered in subsequent generations.

***Exhibit B.***  
***Statement of Distinctness***

COKER 9553 is most similar to the soft red winter wheat 'Panola'. However, it can be easily distinguished by the following morphological characteristics:

- COKER 9553 has an acute beak (Lucerne, CO 2004-2005). Panola has an acuminate beak (Lucerne, CO 2004-2005).
- COKER 9553 has a short glume length, (Lucerne, CO 2004-2005). Panola has a medium glume length (Lucerne, CO 2004-2005).
- COKER 9553 has a long brush length on the seed (Lucerne, CO 2004-2005). Panola has a midlong brush length on the seed (Lucerne, CO 2004-2005).

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE DIVISION  
BELTSVILLE, MARYLAND 20705

EXHIBIT C  
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY  
WHEAT (*Triticum* Spp.)

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NAME OF APPLICANT(S) <b>Syngenta Seeds, Inc.</b>	FOR OFFICIAL USE ONLY PVPO NUMBER
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) <b>6515 Ascher Road Junction City, Kansas 66441</b>	NAME OR EXPERIMENTAL DESIGNATION <b>COKER 9553</b>

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in the first box when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized standard may be used to determine plant colors; designate system used.

Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

1=Common 2=Durum 3=Club 4=Other (specify) \_\_\_\_\_

2. VERNALIZATION:

1=Spring 2=Winter 3=Other (specify) \_\_\_\_\_

3. COLEOPTILE ANTHOCYANIN:

1=Absent 2=Present

4. JUVENILE PLANT GROWTH:

1=Prostrate 2=Semi-erect 3=Erect

5. PLANT COLOR (boot stage):

1 = Yellow-Green 2 = Green 3 = Blue-Green

6. FLAG LEAF (boot stage):

1 = Erect 2 = Recurved

1 = Not Twisted 2 = Twisted

7. EAR EMERGENCE:

Number of Days Earlier Than \_\_\_\_\_ \*

Number of Days Later Than AGS 2000 \*

8. ANTER COLOR:

1 = YELLOW 2 = PURPLE

9. PLANT HEIGHT (from soil to top of head, excluding awns):

cm Taller Than \_\_\_\_\_ \*

cm Shorter Than AGS 2000 \*Equal to @97 cm's

\* Relative to a PVPO-Apprvd Commercial Variety Grown in the Same Trial

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## 10. STEM:

## A. ANTHOCYANIN

**1** 1= Absent 2=Present

## B. WAXY BLOOM

**2** 1=Absent 2=PresentC. HAIRINESS (*last internode of rachis*)**2** 1=Absent 2=PresentD. INTERNODE (*specify number*)**1** 1=Hollow 2=Semi-solid 3=Solid

## E. PEDUNCLE

**2** 1=Erect 2=Recurved**1 0** cm Length11. HEAD (*at Maturity*):

## A. DENSITY

**2** 1=Lax 2=Mid-dense 3= Dense

## B. SHAPE

**2** 1 = Tapering 2= Strap 3 = Clavate 4 = Other (*specify*)

## C. CURVATURE

**3** 1 = Erect 2 = Inclined 3 = Recurved

## D. AWNEDNESS

**4** 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned12. GLUMES (*at Maturity*):

## A. COLOR

**1** 1 = White 2 = Tan 3 = Other (*specify*)

## B. SHOULDER

**2** 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate

## C. BEAK

**2** 1 = Obtuse 2 = Acute 3 = Acuminate

## D. LENGTH

**1** 1 = Short (ca. 7mm) 2 = Medium (ca. 8mm) 3 = Long (ca. 9mm)

## E. WIDTH

**2** 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm) 3 = Wide (ca. 4mm)

## 13. SEED:

## A. SHAPE

**1** 1 = Ovate 2 = Oval 3 = Elliptical

## B. CHEEK

**1** 1=Rounded 2=Angular

## C. BRUSH

**3** 1=Short 2=Medium 3=Long**1** 1 = Not Collared 2 = Collared

## D. CREASE

**1** 1 = Width 60% or less of Kernel  
2 = Width 80% or less of Kernel  
3 = Width Nearly as Wide as Kernel**1** 1 = Depth 20% or less of Kernel  
2 = Depth 35% or less of Kernel  
3 = Depth 50% or less of Kernel

## 13. SEED: (continued)

## E. COLOR

☒ 3      1 = White      2 = Amber      3 = Red      4 = Other (specify) \_\_\_\_\_

## F. TEXTURE

☒ 2      1=Hard      2=Soft

## G. PHENOL REACTION (see instructions):

☒ 0      1 = Ivory      2 = Fawn      3 = Light Brown      4 = Dark Brown      5 = Black

## 14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

<input checked="" type="checkbox"/> 0      Stem Rust ( <i>Puccinia graminis</i> f. sp. <i>tritici</i> ) Field races	<input checked="" type="checkbox"/> 0      Leaf Rust ( <i>Puccinia recondita</i> f. sp. <i>tritici</i> ) Field races
<input checked="" type="checkbox"/> 2      Stripe Rust ( <i>Puccinia striiformis</i> )	<input checked="" type="checkbox"/> 0      Loose Smut ( <i>Ustilago tritici</i> )
<input checked="" type="checkbox"/> 0      Tan Spot ( <i>Pyrenophora tritici-repentis</i> )	<input checked="" type="checkbox"/> 0      Flag Smut ( <i>Urocystis agropyri</i> )
<input checked="" type="checkbox"/> 0      Halo Spot ( <i>Selenophoma donacis</i> )	<input checked="" type="checkbox"/> 0      Common Bunt ( <i>Tilletia tritici</i> or <i>T. laevis</i> )
<input checked="" type="checkbox"/> 0 <i>Septoria nodorum</i> (Glume Blotch)	<input checked="" type="checkbox"/> 0      Dwarf Bunt ( <i>Tilletia controversa</i> )
<input checked="" type="checkbox"/> 0 <i>Septoria avenae</i> (Speckled Leaf Disease)	<input checked="" type="checkbox"/> 0      Karnal Bunt ( <i>Tilletia indica</i> )
<input checked="" type="checkbox"/> 0 <i>Septoria tritici</i> (Speckled Leaf Blotch) Field races	<input checked="" type="checkbox"/> 0      Powdery Mildew ( <i>Erysiphe graminis</i> f. sp. <i>tritici</i> ) Field races
<input checked="" type="checkbox"/> 0      Scab ( <i>Fusarium</i> spp.)	<input checked="" type="checkbox"/> 0      Snow Molds
<input checked="" type="checkbox"/> 0      Black Point (Kernel Smudge)	<input checked="" type="checkbox"/> 0      Common Root Rot ( <i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.)
<input checked="" type="checkbox"/> 0      Barley Yellow Dwarf Virus (BYDV)	<input checked="" type="checkbox"/> 0      Rhizoctonia Root Rot ( <i>Rhizoctonia solani</i> )
<input checked="" type="checkbox"/> 0      Soilborne Mosaic Virus (SBMV) Field races	<input checked="" type="checkbox"/> 0      Black Chaff ( <i>Xanthomonas campestris</i> pv. <i>translucens</i> )
<input checked="" type="checkbox"/> 0      Wheat Yellow (Spindle Streak) Mosaic Virus Field races	<input checked="" type="checkbox"/> 0      Bacterial Leaf Blight ( <i>Pseudomonas syringae</i> pv. <i>syringae</i> )
<input checked="" type="checkbox"/> 0      Wheat Streak Mosaic Virus (WSMV) Field races	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Other (specify) _____

15. INSECT: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

<input checked="" type="checkbox"/> 0	Hessian Fly ( <i>Mayetiola destructor</i> )	<input type="checkbox"/>	Other ( <i>specify</i> )
<input checked="" type="checkbox"/> 0	Stem Sawfly ( <i>Cephus</i> spp.)	<input type="checkbox"/>	Other ( <i>specify</i> )
<input checked="" type="checkbox"/> 0	Cereal Leaf Beetle ( <i>Oulema melanopa</i> )	<input type="checkbox"/>	Other ( <i>specify</i> )
<input checked="" type="checkbox"/> 0	Russian Aphid ( <i>Diuraphis noxia</i> )	<input type="checkbox"/>	Other ( <i>specify</i> )
<input checked="" type="checkbox"/> 0	Greenbug ( <i>Schizaphis graminum</i> )	<input type="checkbox"/>	Other ( <i>specify</i> )
<input checked="" type="checkbox"/> 0	Aphids		

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

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***Exhibit D.***  
***Additional Description of COKER 9553***

COKER 9553 (D00\*6847-2) is a soft red winter wheat bred and developed by AgriPro for grain production. The single cross that produced COKER 9553, (aka. D00\*6874-2), "89M-4035A/Pioneer 2580" was made in the 1993 spring greenhouse at Brookston, IN. COKER 9553 is a medium height wheat with medium-early season heading. This variety is intended for grain production with grain yield data that indicates it is adapted to most of the midsouthern and southeastern soft wheat areas. COKER 9553 has shown good resistance to field races of Stripe Rust.

Juvenile growth habit is semierect. Plant color at boot stage is dark green. Flag leaf at boot stage is erect and twisted. Waxy bloom is present on the head, stem and flag leaf sheath. Anther color is yellow. Head shape is strap, middense and awned. Glumes are glabrous, midwide in width and short in length with oblique shoulders and acute beaks. Seed shape is ovate. Brush hairs are long in length and occupy a large area of the seed tip. Seed crease depth is shallow and width is narrow. Seed cheeks are rounded.

# AgriPro Soft Wheat Quality Summary

Flour/Wheat Quality														Mixogram			
Year-Loc	Wht	Flr	Norris	Brk	Flr	Ash	SRC	SRC	SRC	SRC	SRC	SRC	SRC	Cookie	Top	Peak	Comments
	Prot	Prot	Hard	Flr	Yld	14%mb	LA	SUC	SC	H2O	ETH	mm	R	Dia.	Grain	Time	
	14%mb	14%mb		%	%	%	%	%	%	%	%	mm	R	mm		min	
COKER 9553																	
2005 - MO	8.1	6.7	6	46.4	67.8	0.388	94.70	96.99	73.89	56.07		20.4	2.0				
2005 - JI	10.0	8.5	15	38.5	67.3	0.401	104.20	96.07	69.20	55.68		19.2	2.0			2.50	
2005 - BAR	13.8	12.3	16	41.5	66.4	0.461	99.12	118.36	75.25	56.37		18.0	8.0			5.3	58.5
2004 - MC	11.6	9.9	11	38.1	63.5	0.422	102.38	103.46	71.90	55.24		18.7	5.0				HS
2004 - DA	9.9	8.7	16	38.6	66.4	0.423	108.56	109.49	76.76	60.81		18.6	5.0				
Average:	10.7	9.2	13	40.6	66.3	0.419	101.79	104.87	73.40	56.83		19.0	4.4			2.50	58.5

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AGRIPRO YIELD DATA (Bu/Ac)							
MIDSOUTH							
		%		%			
6874	TRL MEAN	TRL MEAN	CK MEAN	CK MEAN	AGS2000	YR	LOC
76	65.3	116%	66.0	115%	61	03	AL, Hillsboro
56	53.9	104%	57.0	98%	41	03	AL, Meridianville
74	67.8	109%	71.6	103%	71	04	AR, Bay-u
72	60.1	120%	58.1	124%	71	01	AR, DeWitt
75	71.3	105%	72.0	104%	76	02	AR, DeWitt
90	78.7	114%	78.7	114%	73	03	AR, DeWitt
84	80.6	104%	85.4	98%	86	04	AR, DeWitt
116	103.5	112%	106.2	109%	119	04	AR, DeWitt-u
69	65.2	106%	66.6	104%	73	03	AR, HollyGrove
57	49.5	115%	50.4	113%	48	01	AR, J'boro Hmgmt
79	71.2	111%	69.6	114%	71	02	AR, J'boro Hmgmt
73	66.3	110%	65.0	112%	63	03	AR, J'boro Hmgmt
83	75.5	110%	75.6	110%	79	04	AR, J'boro Hmgmt
54	51.9	104%	61.4	88%	64	01	AR, Jonesboro
73	65.7	111%	63.9	114%	65	02	AR, Jonesboro
66	63.9	103%	61.7	107%	62	03	AR, Jonesboro
74	71.8	103%	68.9	107%	76	04	AR, Jonesboro
61	65.6	93%	61.9	99%	80	01	AR, Marion
56	47.0	119%	47.6	118%	50	02	AR, Marion
72	68.6	105%	64.0	113%	68	03	AR, Marion
62	59.0	105%	60.0	103%	64	02	AR, Marion-clay
77	79.4	97%	80.4	96%	93	04	AR, Marion-clay
85	77.6	110%	72.1	118%	81	04	AR, Stuttgart-u
64	62.2	103%	63.3	101%	65	02	MO, Charleston
87	85.3	102%	85.2	102%	85	03	MO, Charleston
90	84.2	107%	84.8	106%	85	04	MO, Charleston
80	77.3	103%	81.5	98%	90	01	MO, Sikeston
92	81.3	113%	79.5	116%	86	01	MS, Cleveland
65	62.2	105%	65.9	99%	67	02	MS, Cleveland
72	59.9	120%	62.3	116%	58	03	MS, Cleveland
77	62.5	123%	66.4	116%	61	04	MS, Cleveland
97	75.6	128%	83.3	116%	67	04	MS, Cleveland-u
92	88.4	104%	92.9	99%	89	03	MS, Greenville
76	78.5	97%	87.2	87%	100	04	MS, Greenville
116	103.5	112%	105.2	110%	103	04	MS, Newton-u
63	67.2	94%	65.9	96%	70	02	TN, Dyersburg
73	70.9	103%	68.7	106%	72	03	TN, Dyersburg
73	69.1	106%	73.2	100%	67	04	TN, Dyersburg
<b>76.3</b>	<b>70.7</b>		<b>71.8</b>		<b>73.7</b>		
No. Locs	38		38		38		

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AGRI PRO YIELD DATA (Bu/Ac)						
SOUTHEAST						
		%		%		
6874	TRL MEAN	TRL MEAN	CK MEAN	CK MEAN	AGS2000	YR
						LOC
87	80.7	108%	83.3	104%	86	04 FL, Quincy-u
89	85.1	105%	93.2	96%	101	04 GA, Griffin-u
93	85.7	109%	89.6	104%	91	03 GA, Plains
80	79.9	100%	77.6	103%	79	04 GA, Plains
73	72.2	101%	72.6	101%	77	04 GA, Plains-u
54	53.4	101%	60.3	90%	63	03 GA, Tifton
95	92.4	103%	95.6	99%	97	04 GA, Tifton
59	42.3	139%	39.5	149%	23	02 NC, Kinston
58	57.7	101%	53.0	109%	53	03 NC, Kinston
76	65.6	116%	69.5	109%	74	04 NC, Kinston
82	70.4	116%	69.2	119%	73	04 NC, Kinston-u
58	45.5	127%	53.3	109%	51	02 NC, Plymouth
38	40.3	94%	45.0	84%	51	03 NC, Plymouth
58	59.4	98%	57.8	100%	61	04 NC, Plymouth
50	43.1	116%	45.8	109%	57	02 SC, Blackville
88	83.7	105%	85.2	103%	84	03 SC, Blackville
56	51.9	108%	51.7	108%	60	04 SC, Blackville
78	72.8	107%	78.1	100%	77	04 VA, Prov. Forge
57	59.9	95%	59.0	97%	56	04 VA, Warsaw-u
69.9	65.4		67.3		69.2	
No. Locs	19.0		19.0		19	

2001 - 2004  
AgriProCOKER  
Midsouth Agronomy

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VARIETY	TW (lbs/bu)	'04		'03		'02		'01	
	AVG	DA	MC	DA	SM	DA	SM	DA	SM
<u>Variety Trial:</u>									
AGS 2000	59.7	60	61	56	61	62	59	56	63
NATCHEZ	58.8	59	58	54	60	59	61	57	62
SAVAGE	59.6	60	60	55	60	62	61	57	64
<u>Adjacent Exp Trial</u>									
AGS 2000	59.7	60	61	56	61	62	59	57	62
D00*6874	59.8	60	59	57	60	61	60	58	63

VARIETY	HEADING (cm)	'04				'03		'02			'01
	AVG	CS	DA	PSR	SM	DA	SM	CS	DA	JA	CS
<u>Variety Trial:</u>											
AGS 2000	107.5	98	98	111	111	108	118	107	106	113	106
NATCHEZ	113.2	107	110	114	119	110	121	112	111	119	109
SAVAGE	111.7	107	110	112	119	109	119	111	111	117	103
<u>Adjacent Exp Trial</u>											
AGS 2000	107.4	98	98	111	111	108	118	107	106	113	105
D00*6874	109.6	102	107	112	113	108	117	110	108	115	105

VARIETY	Height (cm)	'04				'03		'02			'01				
	AVG	CS	DA	CA	MC	SM	CS	DA	SM	DA	JA	SM	CS	DA	SM
<u>Variety Trial:</u>															
AGS 2000	97.3	107	107	100	103	100	92	101	102	92	88	91	91	97	94
NATCHEZ	104.4	114	120	100	102	110	96	111	107	98	99	102	103	104	99
SAVAGE	93.9	105	110	93	92	95	84	97	98	93	83	92	93	91	90
<u>Adjacent Exp Trial</u>															
AGS 2000	97.3	107	107	100	103	100	92	101	102	92	88	91	94	94	94
D00*6874	97.1	112	105	99	99	105	90	97	100	89	89	95	94	97	91

**Location Abbreviations**

CA = Crawfordsville, AR (fine sandy loam)  
 CI = Carmi, IL  
 CS = Cleveland, MS  
 MA = Marion, AR (fine silt loam)  
 MC = Marion, AR (heavy clay soil)  
 HKY = Hopkinsville, KY  
 DTN = Dyersburg, TN  
 EPMO = East Prairie, MO  
 KC = KINSTON, NC  
 JA = Jonesboro, AR standard management  
 JH = Jonesboro, AR intensive management  
 PSR = Jonesboro, AR (seed increase plots)  
 SM = Sikeston, MO area

\*Heading Dates from January 1

2001 - 2004  
AgriProCOKER  
Midsouth Pathology

200600238

VARIETY	SBMV AVG	'04 HK	'04 PC	'02 MC	DT	'01 DT	PM AVG	'04 KC	'03 KC	'02 KC	'01 KC
<u>Variety Trial:</u>											
AGS 2000	4.9	4	5	4	7	5	2.8	3	1	4	4
NATCHEZ	1.3	1		2	1	1	4.5		4	6	4
SAVAGE	1.3	1		2		1	5.0		5		
<u>Adjacent Exp Trial</u>											
AGS 2000	4.1	4	5	4	7	1	2.5	3	1	4	3
D00*6874	3.6	3	3	2	5	4	4.3	5	3	4	6

VARIETY	S tritici AVG	'02 HN	'01 CS	L Rust AVG	'04 CS	CA	MC	'03 DA	'02 DA	MA	JA	DT	SM
<u>Variety Trial:</u>													
AGS 2000	4.5	5	4	2.0		2	2	1	1	2	2	3	3
NATCHEZ	2.5	2	3	1.6	1	1	1	4	1	2	1	2	1
SAVAGE	3.0	3	3	3.0	3	3	3	2	3	2	3	5	3
<u>Adjacent Exp Trial</u>													
AGS 2000	4.5	5	4	2.0		2	2	1	1	2	2	3	3
D00*6874	4.5	6	3	4.1	6	4	4	4	4	4	4	3	4

VARIETY	Stripe Rust AVG	'04 CS	'03 GS	CS	DA	HA	'02 DA	FHB % AVG	'04 HK	CI	'03 GH	CI
<u>Variety Trial:</u>												
AGS 2000	5.1	6	3	7	7	3	5	83.1	88	80	90	75
NATCHEZ	1.5	2	1	1	2		2	25.0	50	5	20	25
SAVAGE	2.7	3	1	4	3		2	41.9	50	38	30	50
<u>Adjacent Exp Trial</u>												
AGS 2000	5.5	6	3	7	7		5	83.1	88	80	90	75
D00*6874	2.0	2	1	2	2		3	63.3		50	90	50

**Location Abbreviations**

CA = Crawfordsville, AR (fine sandy loam)	HKY = Hopkinsville, KY
CI = Carmi, IL	DTN = Dyersburg, TN
CS = Cleveland, MS	EPMO = East Prairie, MO
MA = Marion, AR (fine silt loam)	KC = KINSTON, NC
MC = Marion, AR (heavy clay soil)	JA = Jonesboro, AR
DA = DeWitt, AR	KC = Kinston, NC
DA = DeWitt, AR	PC = Plymouth, NC
DT = Dyersburg, TN	SM = Sikeston, MO area
GS = Greenville, MS	HK = Hopkinsville, KY
GH = greenhouse ratings	HN = Haubstadt, IN
HA = Holly Grove, AR	

Ratings: 1 = best score (resistant), 9 = worst score (susceptible)  
Scab: visual % infected

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

EXHIBIT E  
STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S)  Syngenta Seeds, Inc.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER D00*6874-2	3. VARIETY NAME COKER 9553
4. ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country)  6515 Ascher Road  Junction City, Kansas 66441	5. TELEPHONE (include area code) 785-210-0218	6. FAX (include area code) 785-210-0231
7. PVPO NUMBER		200600238

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain ☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☒ YES ☐ NO

10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

Please see following page.

## PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

***Exhibit E.***  
***Statement of the Basis of Applicant's Ownership***

The variety for which Plant Variety Protection is hereby sought was developed by Barton Fogleman, an employee of Syngenta Seeds, Inc. By agreement between employees and Syngenta, all rights to any invention, discovery, or development made by the employee while employed by Syngenta, were assigned to Syngenta Seeds, Inc., with no rights of any kind pertaining to 'COKER 9553' being retained by the employees.

The variety 'COKER 9553' is owned by Syngenta Seeds, Inc.